

NEW DESCRIPTION

A NEW SPECIES OF *BRACHYMERIA* WESTWOOD (HYMENOPTERA: CHALCIDIDAE)
ON RICE SKIPPER, *PARNARA GUTTATA* (LEPIDOPTERA: HESPERIIDAE)
FROM SOUTH KASHMIRMD. JAMAL AHMAD¹¹Division of Entomology, S.K. University of Agricultural Sciences & Technology (Kashmir), Shalimar campus, Srinagar 191 121, Jammu & Kashmir, India. Email: ahmad_j@rediffmail.com*Brachymeria masoodii* sp. nov., a parasite on rice skipper *Parnara guttata* Bremer & Grey in Kashmir is described and illustrated. A key to the Indian species of *Brachymeria* Westwood, parasitic on rice skippers is also provided.**Key words:** *Brachymeria masoodii*, Kashmir, new species, *Parnara guttata*, Rice

INTRODUCTION

Genus *Brachymeria* Westwood is so far known by over 80 species in India including three species, namely *B. intermedia* (Nees), *B. ornatipes* (Cameron) and *B. lasus* (Walker) from Jammu and Kashmir (Narendran 1986; Masoodi *et al.* 1986). So far, four species, i.e., *B. albotibialis* (Ashmead), *B. excarinata* (Gahan), *B. jayaraji* (Joseph *et al.* 1973) and *B. nigrigorporis* (Husain and Agarwal 1982) are reported from the pupae of *Parnara mathias*, from India. *B. masoodii* sp. nov. has been recorded from *Parnara guttata* infesting rice in Kashmir.

KEY TO THE INDIAN SPECIES OF *BRACHYMERIA* WESTWOOD,
ASSOCIATED WITH RICE SKIPPERS

1. Hind coxa without inner tooth; head without post orbital carina 2
- Hind coxa with inner tooth; head with distinct post-orbital carina 4
2. Frons with distinct preorbital carina; hind tibia mostly black, as long as hind femur, the latter black with 10-12 teeth *B. excarinata* Gahan
- Frons without pre-orbital carina; hind tibia either red or yellowish; hind femur always red; other characters vary 3
3. Hind tibia red in middle and at base; antenna with funicle segments transverse; first tergite of abdomen densely punctate at apical half *B. nigrigorporis* Husain & Agarwal
- Hind tibia yellowish; antenna with funicle segments quadrate; first tergite of abdomen finely reticulate *B. jayaraji* Joseph *et al.*
4. Abdomen distinctly shorter than the combined length of pronotum, mesoscutum and scutellum; hind tibia longer than hind femur, the latter with 13 teeth; median ocellus as wide as lateral ocelli; antenna with last two funicle segments wider than long *B. albotibialis* (Ashmead)

- Abdomen as long as or slightly longer than the combined length of pronotum, meso-scutum and scutellum; hind tibia shorter than the hind femur, the latter with 11 teeth; median ocellus distinctly wider than lateral ocelli; antenna with last two funicle segments only slightly wider than long *B. masoodii* sp. nov.

*Brachymeria masoodii** sp. nov.

(Fig. 1a-d)

Female (Holotype): Body black, tegulae yellow; tips of all femur, tibiae, except ventral carina of hind tibia yellow; tarsi light brown with distal segments blackish brown; all coxae black; antennae and wing venation blackish brown; wings hyaline; body pubescent except of eyes, of scrobal area, clypeus, anterior margin of mesoscutum; first abdominal tergite white and setose. Body punctures umbilicate with interspaces smooth, rugose on parascrobal area.

Head: A little wider than maximum width of thorax; scrobes deep, smooth, almost touching the median ocellus, with scrobal edges distinctly raised from general surface and

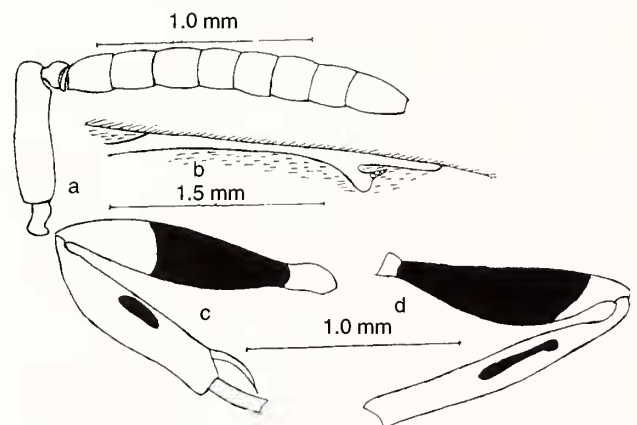


Fig. 1 (a-d): *Brachymeria masoodii* sp. nov., female
a. Antenna, b. Part of forewing, c. Part of fore tibia,
d. Part of middle tibia

Table 1: Distinguishing characters between *B. albotibialis* and *B. masoodii*

| <i>Brachymeria albotibialis</i> (Ashmead) | <i>Brachymeria masoodii</i> sp. nov. |
|--|---|
| 1. Body length 3.6 mm. | 1. Body length 6.82 mm. |
| 2. Front and mid tibiae without a medial black patch. | 2. Front and mid tibiae each with a medial black patch. |
| 3. Eye twice as long as wide. | 3. Eye less than twice as long as wide. |
| 4. Interocellar distance two-and-a half times as long as distance between median and lateral ocelli. | 4. Interocellar distance slightly over three times as long as distance between median and lateral ocelli. |
| 5. Median and lateral ocelli equal in diameter. | 5. Median ocellus wider than lateral ocellus. |
| 6. Antenna with pedicel as long as wide. | 6. Antenna with pedicel 1.36 times as wide as long. |
| 7. Antenna with ring segment two- and one- third as wide as long. | 7. Antenna with ring segment five times as wide as long. |
| 8. Hind tibia longer than the hind femur. | 8. Hind tibia 1.18 times shorter than the hind femur. |
| 9. Abdomen distinctly shorter than the combined length of pronotum, mesoscutum and scutellum. | 9. Abdomen nearly as long as the combined length of pronotum, mesoscutum and scutellum (200:202). |
| 10. Abdomen with first tergite shagreen. | 10. Abdomen with first tergite shiny smooth. |

in front of antennal toruli; parascrobal area thickly setose, rugose; clypeus shiny, smooth, with a row of deep punctures, the latter on head wider than the interspaces, except below scrobes which is finely rugose. Antenna inserted below centre of face, compact, 11-segmented with other characters as in Fig. 1a.

Thorax: Moderately arched; mesoscutum with parapsidal grooves fine, complete, anterior region of mesoscutum transversely rugose, remaining areas punctate; pubescence thick on margin of scutellum, sparsely setose elsewhere on thorax; propodeum with irregular large spaces. Forewing as shown in Fig. 1b. Legs (Fig. 1c,d) with fore- and middle tibiae with a small blackish brown patch medially; hind coxa with outer surface densely punctate, inner area smooth, ventral margin with an inner tooth; hind femur with punctures moderate-sized at its outer margin, finely punctate medially with interspaces shiny and larger than width of punctures; outer margin of hind femur with a row of 11 teeth, 1-6 large, 7-8 small, 9 smaller and 10-11 smallest.

Abdomen: Compact, first gastral tergite shiny smooth, glabrous; ovipositor hidden.

Relative measurements (Holotype) (L:W): Head : dorsally 30:158; facially 108:158; diameter of median and lateral ocelli 14 and 11 respectively; Postocellar length 28; Ocello ocular length 12; eye 75:41; length of malar space 26; inter-ocular distance 76; scrobe 60:44; width of parascrobe 17; diameter of antennal torulus 14; inter-torular distance 11; distance from toruli to clypeus and median ocellus 22 and 65 respectively; scape 63:13; pedicel 7:9.5; ring segment 2:10; F₁ 16:13; F₂ 15:14.5; F₃ 14:15; F₄- F₇ 14:15.5; club 21:15.5. Thorax : pronotum 32:115; mesoscutum 85:156; scutellum 85:76; propodeum 25:62; diameter of punctures on scutellum 1.5 times wider than remaining parts of thorax (6:4); forewing 150:348; lengths of submarginal, marginal,

post-marginal and stigmal in the ratio of 122:73:29:8 respectively; hind coxa 100:46; hind femur 148:60 and hind tibia 125:13. Abdomen 200:127; length of first and second tergites 74 and 51 respectively.

Female: 6.82 mm long.

Male: Not known.

Holotype: Female, INDIA: J&K; Anantnag, Regional Rice Research Station, Khudwani; ex: pupae of *Parnara guttata* Bremer & Grey, on paddy, 18.ix.2003 (J. Ahmad).

Paratypes: 6 females (Same data as of holotype). 20.ix.2003 (J. Ahmad) (on card). Holotype, and all paratypes are deposited in the National Pusa Collection, IARI, New Delhi.

Holotype and Paratypes: 136/15/45/1. Slide number: 13/6/45/1

Etymology: The species has been named after Dr. Amin Masoodi, ex Director Research, S.K. University of Agricultural Sciences & Technology (Kashmir), Shalimar campus, Srinagar, for his excellent contribution in the field of Agricultural Entomology.

Remarks: The new species resembles *Brachymeria albotibialis* (Ashmead) in many respects, such as colour of tegulae, legs; absence of preorbital carina on frons; maximum width of scrobes in relation to interocular length comparative lengths of malar space and eye; funicle segments F₃- F₇ subequal etc. (Joseph *et al.* 1973; Table 1), however, following differences between the two are sufficient enough to propose the present species as new one.

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